

# EPO-TEK®

## World Class LED Adhesives

### Heat Sink Attach Electrically & Thermally Conductive

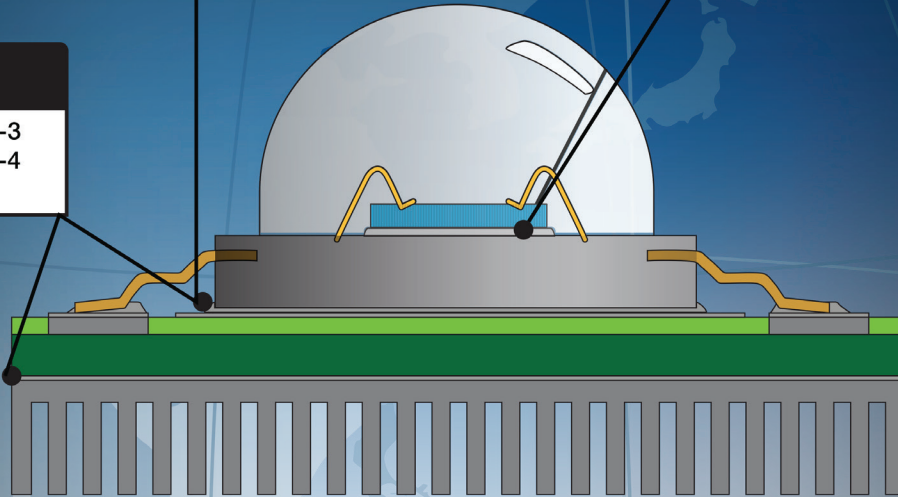
- EK1000
- EK1000-1
- EK1000-1-D
- EK2000
- H20E
- H20E-D

### Heat Sink Attach Thermally Conductive

- 930-4
- H70E
- T7109
- T905BN-3
- T905BN-4
- TD1001

### Die Attach Electrically & Thermally Conductive

- EK1000
- EK1000-1
- EK1000-1-D
- EK2000
- H20E
- H20E-D

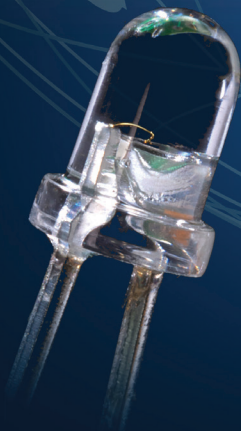


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- Unsurpassed Thermal and Electrical Management
- Proven Quality and Reliability

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# Die Attach

## Electrically and Thermally Conductive

| EPO-TEK®         | Cure Temperature (minimal) | Viscosity @ 23°C (cPs)    | Volume Resistivity (ohm-cm) | Thermal Conductivity (W/m²K)                        | Performance Features                                                                                                    |
|------------------|----------------------------|---------------------------|-----------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| EK1000<br>EK2000 | 200°C - 30 min             | 1,800 - 3,600 @ 100 rpm   | <0.00009                    | 12.6 (150°C/1hr cure)<br>26.3 (200°C/1hr post-cure) | Adhesive exhibiting exceptional thermal and electrical conductivity. Ideal for high power LEDs.                         |
| EK1000-1         | 200°C - 30 min             | 13,000 - 21,000 @ 100 rpm | ≤0.0007                     | 12.1 (150°C/1hr cure)<br>22.7 (200°C/1hr post-cure) | Longer dry time than EK1000. Designed for applications requiring longer working time.                                   |
| EK1000-1-D       | 200°C - 30 min             | 2,200 @ 100 rpm           | ≤0.00008                    | 12.1 (150°C/1hr cure)<br>22.7 (200°C/1hr post-cure) | Lower viscosity than EK1000. Designed for application requiring longer working time and better flowing.                 |
| H20E             | 150°C - 5 min              | 2,200 - 3,200 @ 100 rpm   | ≤0.0004                     | 2.5 (150°C/1hr cure)                                | Adhesive with proven reliability in low power LEDs.                                                                     |
| H20E-D           | 175°C - 45 sec             | 1,400 - 1,900 @ 100 rpm   | 0.0004                      | 3.26 (150°C/1hr cure)                               | Silver-filled epoxy with a smooth thixotropic consistency. Designed for applications requiring enhanced dispensability. |

# Heat Sink Attach

## Electrically and Thermally Conductive

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## Thermally Conductive

|          |                                  |                          |                       |                                                               |                                                                                            |
|----------|----------------------------------|--------------------------|-----------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 930-4    | 150°C - 10 min<br>80°C - 6 hours | 12,000 - 17,000 @ 20 rpm | ≥2 x 10 <sup>13</sup> | 1.7 (150°C/1hr cure)                                          | Adhesive providing excellent heat dissipation and insulating properties.                   |
| H70E     | 175°C - 1 min<br>80°C - 90 min   | 4,000 - 7,000 @ 50 rpm   | ≥1 x 10 <sup>13</sup> | 0.9 (150°C/1hr cure)                                          | Fast curing adhesive recommended for thermal management applications.                      |
| T7109    | 150°C - 10 min<br>80°C - 8 hours | 14,000 - 20,000 @ 20 rpm | ≥8 x 10 <sup>12</sup> | 0.7 (40 mil) (150°C/1hr cure)<br>1.5 (3 mil) (150°C/1hr cure) | Low stress adhesive designed for large bond area die attach and heat sinking applications. |
| T905BN-3 | 80°C - 2 hours                   | 2,000 - 7,000 @ 50 rpm   | 3 x 10 <sup>11</sup>  | 2.0                                                           | Adhesive with high thermal conductivity designed for heat sinking and encapsulation.       |
| T905BN-4 | 80°C - 1 hour<br>23°C - 1 day    | 12,000 - 18,000 @ 20 rpm | ≥4 x 10 <sup>14</sup> | 1.8                                                           | Room temperature curing adhesive with pure white color for easy inspection.                |
| TD1001   | 125°C - 1 hour                   | 10,000 - 22,000 @ 5 rpm  | ≥2 x 10 <sup>13</sup> | 0.8                                                           | White adhesive with low T <sub>g</sub> and long pot life for low stress packaging.         |



Please consult our *Application Experts* at Epoxy Technology to find the most suitable adhesives for specific technical challenges at: [techserv@epotek.com](mailto:techserv@epotek.com).

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